ACCESSION NR: AP3013324 S/0022/63/016/005/0119/0123

AUTHORS: Arutyunyan, F. R.; Ananova, L. A.; Grigoryan, N. G.

TITLE: Highly directional Cerenkov counter for relativistic particles

SOURCE: AN ArmSSSR. Izvestiya. Seriya fiz.-matem. nauk, v. 16, no. 5, 1963, 119-123

TOPIC TAGS: Cerenkov counter, relativistic Cerenkov counter, particle detector, charged particle detector

ABSTRACT: A highly directional Cerenkov counter has been designed for relativistic particles of threshold magnitude

$$\beta_{0\,\mathrm{thresh}} = (n_1^2 - n_2^2)^{-\frac{1}{2}},$$

using the principle of total reflection from the base of the radiator (detector) as well as from the side wall surfaces. The trapped radiation in the detector can then be used to detect particles with a $\beta > 0.995$, which, in terms of the angle γ between the normal to the radiator base and the incoming particle beam direction,

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ACCESSION NR: AP3013324

can be represented by $\beta_{0\,thresh} = \frac{\beta_{0\,thresh}}{\cos\gamma - n_2 \cdot \beta_{0\,thresh} \sin\gamma}$,

where n_1 - reflective index of the radiator, and n_2 - the reflective index of the media surrounding the radiator. Orig. art. has: 2 equations and 2 figures.

ASSOCIATION: none

SUBMITTED: 14Mar63 DATE ACQ: 22Nov63 ENCL: 00

SUB CODE: PH NO REF SOV: 001 OTHER: 003

Card 2/2

ACC NR: AP1005541 SOURCE CODE: UR/0252/66/043/002/0087/0090

AUTHOR: Ananova, L. A.; Arutyunyan, F. R.; Oganesyan, R. A.; Petrosyan. Zh. V.

ORG: Physics Institute, (Fizicheskiy institut) AN ArmSSR; Joint Radiation Laboratory of the Academy of Sciences of the Armenian SSR and of the Yerevan State University (Ob"yedinennaya radiatsionnaya laboratoriya Akademii nauk Armyanskoy SSR i Yerevanskogo gosudarstvennogo universiteta) AN ArmSSR

TITLE: Transition radiation in oblique passage of electrons through aluminum films

SOURCE: AN ArmSSR. Doklady, v. 43, no. 2, 1966, 87-90

TOPIC TAGS: metal film, aluminum, electron bombardment, transition radiation, electric polarization, angular distribution

ABSTRACT: This is a continuation of earlier work (ZhETF Pis'ma v redaktsiyu v. 3, 193, 1966), dealing with normal incidence of electrons on films of different metals. In the earlier investigation no radiation component polarized in the perpenducular plane was observed in the case of aluminum. The present article contains the results of an investigation of the transition radiation produced when electrons with energy 60 kev pass obliquely through films of aluminum of thickness 124 - 329 Å. It is shown that in the case of oblique incidence, a perpendicular radiation component appears, the magnitude of which increases with the angle as the altter rises from 0° to 45°. The polarization of the radiation is then no longer linear and the plane in which the maximum intensity is observed does not coincide with the plane containing the normal

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ACC NR: AP7005541

to the surface of the film and the observation direction. The component polarized in the direction of observation also exhibits an anomalous behavior. The absolute value of the perpendicular component is on the average one order of magnitude higher than predicted by theory, and the component in the observation direction is about half the value predicted by the thoery. However, the angular dependence agrees with the theoretical distribution. It is proposed that the discrepancy is due to the special structure of the aluminum film, but the lack of a theory of transition radiation in the case of inclined incidence of the particle in the crystal makes it impossible to draw any final conclusions. This report was submitted by Corresponding member AN ArmSSR M. L. Ter-Mikayelyan 20 April 1966. Orig. art. has: 3 figures.

SUB CODE: 20,11 / SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 002

Card 2/2

ANANOVA, Ye. N.

"New Data on Sarmatian Vegetation in the lower Dnieper Area," Bot. Zhur., 27, no. 2, 1952

Paleobotany - Dnieper Valley

ANANOVA, Ye.N.

Osmunda cinnamomea L. spores in the interglacial Mindel-Riss deposits around the town of Likhvin. Dokl.AN SSSR 95 no.5:1089-1091 Ap '54. (MLRA 7:4)

Predstavleno akademikom V.N.Sukachevym.
(Likhvin--Spores, Fossil) (Spores, Fossil--Likhvin)

ANANOVA, Ye.N.

New data on the flora and vegetation of the Pliocene. Dokl.AN SSSR 96 no.3:625-628 My '54. (MLRA 7:6)

1.Predstavleno akademikom V.N.Sukachevym.
(Volga Valley--Paleobotany) (Paleobotany--Volga Valley)

20-1-55/58

AUTHOR: Ananova, Ye. N.

TITLE: The Pollen Morphology of Polygonum bistorta L. (Morfologiya pyl'tsy Polygonum bistorta L.) Normally Developed and Underdeveloped Forms (Normal'no razvityye i nedorazvityye formy).

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 1, pp. 194-196 (USSR)

ABSTRACT: Among the fossil-Quaternary pollen the author found pollen-grains of a peculiar shape as if they had another, higher stage of fossilization. They had indistinctly marked structural elements (grooves, pores and so on), the thickness of "exines" was badly visible and in most cases the sculpture or texture was hardly marked. The surface usually shone like mother-of-pearl. Such pollen was hard to draw, even to describe. In the case of small grains the plant family sometimes even is undefinable. Doubts rise whether this pollen was not re-deposited. In the old-Quaternary inter-stadium sediments of the lower Kama-river the author among others found pollen-grains which remotely recall Polygonum with the aid of preparations of samples she found out that this pollen belongs to an underdeveloped forms of Polygonum bistorta. The morphological peculiarities of the pollen of this plant are described in

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The Pollen Morphology of Polygonum bistorta L. Normally Developed and Underdeveloped Forms

20-1-55/58

publications (references 1,2), but the underdeveloped pollen was disregarded. The author gives a detailed description together with representations of this pollen. It belongs to the group pf 3-grooved and 3-pored plants. It most resembles the pollen of P. ellipticum. These descriptions shall serve the palinologists in the determination of genus and species of the pollen.
There are 1 figure, and 2 references, 1 of which is Slavic.

PRESENTED: September 7, 1957, by V. N. Sukachev, Academician

SUBMITTED: August 4, 1957

AVAILABLE: Library of Congress

Card 2/2

ANANOVA, Ye.N.

"Periglacial" flora from lower Quaternary deposits of the Kama Valley. Probl.bot. 4:92-128 '59. (MIRA 13:1)
(Naberezhnyye Chelny region--Palynology)

3(5) SOV/20-128-2-37/59

AUTHOR: Ananova, Ye. N.

TITLE: The Kashpirovka and Kreking Pliocene Florae

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 2, pp 355-358 (USSR)

ABSTRACT: 25 years ago, P. A. Nikitin found conifer pollen in exposures near Syzran', Lower Povolzh'ye (Volga region). He believed that the pollen complex found pointed to a conifer- or taiga type of the Pliocene phase (Ref 8, p 70). Nikitin assumes that according to their stratigraphy these forms correspond to the end of Akchagyl, i.e. to the taiga phase of the Tsentral'naya chernozemnaya oblast' (central black-earth region). The data, although very rare, enabled Nikitin to draw a perfectly correct conclusion concerning the basic character of vegetation in the region investigated in a certain Pliocene stage. Since 1954 very valuable palinological material from Pliocene has been collected in layers in connection with an extended water building activity. The Kinel' strata in the region of Samarskaya Luka (Samara bow of the Volga) were investigated by M. N. Grishchenko (Ref 4). P. I. Dorofeyev analyzed the seed

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florae of Povolzh'ye (Volga region) and the lower Kama (Refs 5-7). An image of the plant cover of the afore-mentioned region during a longer Pliocene period may be reconstructed on the strength of this material, as well as its evolution and successions. The author wants to complement here the knowledge of Pliocene flora and -vegetation on the strength of an investigation of Pliocene deposits made in the environments of Syzran' from 1950-51. Material of M. G. Kipiani and A. D. Kol'butov served this purpose. K a s h p i r o v k a f l o r a : The complex consists of 88% tree pollen, 3% herbaceous plants, 4 and 5% fern- and moss spores, respectively. Spruce-trees of the section Eupicea predominate among the pollen, followed by pine-trees of both subgenera. Tsuga, fir-tree (Abies), and deciduous trees occur very rarely. The entire pollen has the same degree of fossilization except the rearranged Mesozoic spores. K r e k i n g f l o r a : 85% of the pollen belongs to tree species. Herbaceous plants and undershrubs reach 10%, fern- and moss spores 3 and 2%, respectively. The section Eupicea predominates here as well (55%), pine-tree pollen play an important role. The pollen of Tsuga, fir-tree, elm, and several other trees is rare. The lists given and the

percentage ratios of the pollen indicate distinctly enough the taiga type of the wood. Nikitin's interpretation of the age of the containing deposits is correct in general but needs one correction: they do not belong to the end of Akchagyl, but more probably to its lower part or even to the topmost parts of Kinel'. The results obtained by the author agree well with the data of A. A. Chiguryayeva for southern Predural'ye (pre-Ural region, Ref 9). There are 9 Soviet references.

PRESENTED: April 3, 1959, by V. N. Sukachev, Academician

SUBMITTED: April 2, 1959

ANANOVA, Ye.N.

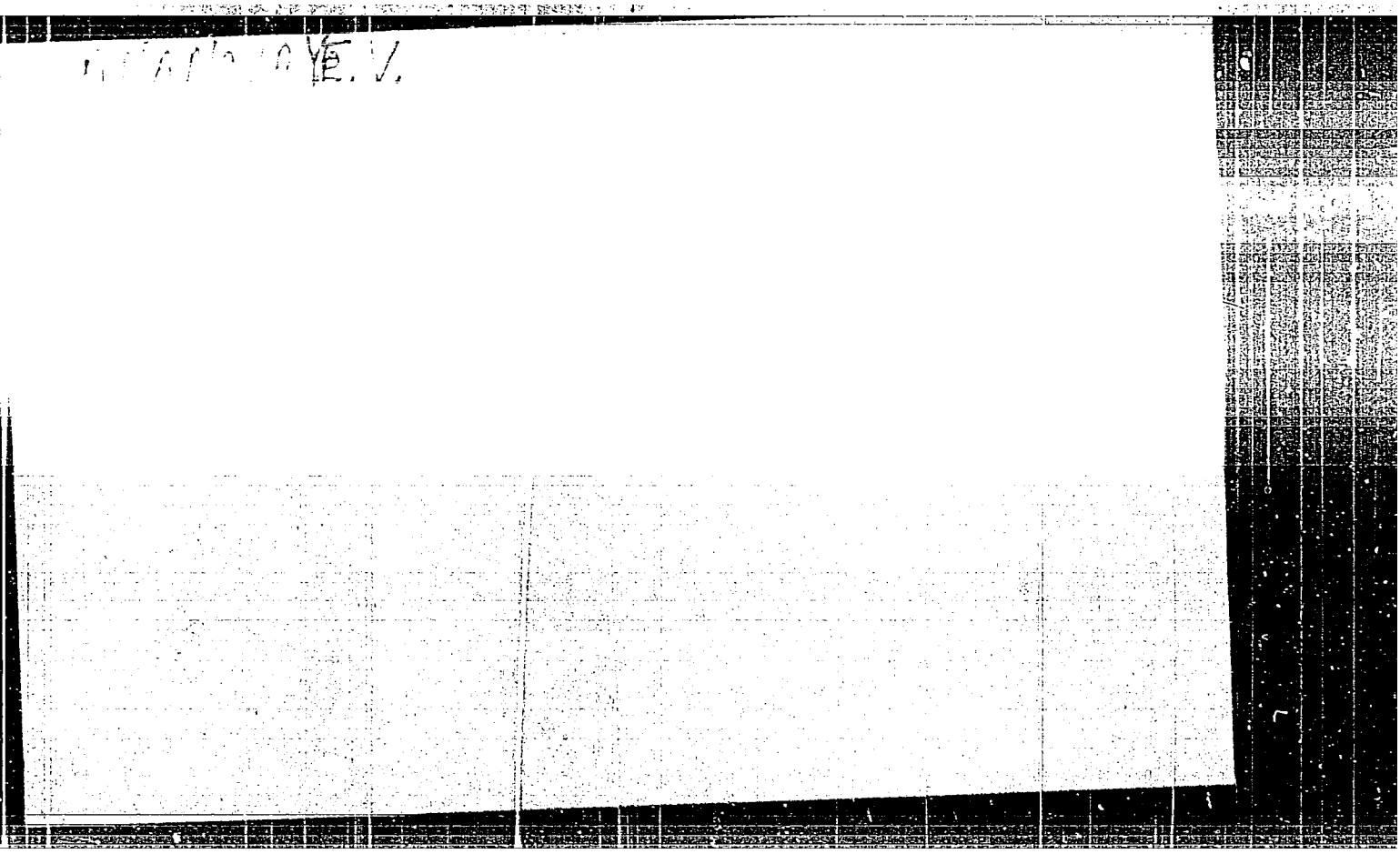
Redeposited pollen complexes. Biul.MOIP. Otd.biol 65 no.3: 132-135 My-Je '60. (MIRA 13:7)

(PALYNOLOGY)

ANANOVA, Ye. N.

Palynological data on the volume and lower boundary of the Quaternary. Trudy Kom. chetv. per. 20:67-84 '62.
(MIRA 16:1)

(Palynology)



ANANOVA, Ye.V.; YEMEL'YANOVA, O.S.

Use of the fluorescent-serological method for the detection of the microbe of tularemia. Lab. delo no.1:35-39 '64. (MIRA 17:4)

1. Laboratoriya tulyaremii otdela infektsiy s prirodnoy ochagovost'yu Instituta epidemiologii i mikrobiologii im. N.F.Gamalei AMN SSSR.

*

ACCESSION NR: AP4025079 S/0016/64/000/003/0092/0095

AUTHOR: Ananova, Ye. V.; Savel'yeva, R. A.

TITLE: Possibility of F. tularensis penetration through uninjured skin (preliminary report)

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 3, 1964, 92-95

TOPIC TAGS: F. tularensis, uninjured skin penetration, F. tularensis morphology, hair follicle, sebaceous gland duct, histological investigation

ABSTRACT: Lateral body areas of 13 guinea pigs were sheared and 48 hrs later a 1 ml drop of an F. tularensis culture containing a billion microbes was applied to 1 cm^2 of the sheared area to determine possibility of penetration through uninjured skin. Special precautions were taken to allow the drop to dry thoroughly on the skin and to avoid the possibility of being rubbed into the skin. During the following week histological investigations were made of infected skin areas in 11 guinea pigs displaying a reaction. Eleven of the 13 gui-

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ACCESSION NR: AP4025079

nea pigs had become infected and died within 8 to 13 days. The other 2 guinea pigs remained healthy as was confirmed by serological and allergy tests conducted a month after infection. Thus, the skin is not an absolute barrier for F. tularensis. Histological investigations indicate that microbes appear to penetrate through the hair follicles and sebaceous gland ducts. Orig. art. has: None.

ASSOCIATION: Institut epidemiologii i mikrobiologii im. Gamalei AMN SSSR (Epidemiology and Microbiology Institute, AMN SSSR)

SUBMITTED: 02Jan63 ENCL: 00

SUB CODE: LS NR REF SOV: 007 OTHER: 002

Card 2/2

L 6838-65 EWT(1)/EWA(b) AMD/Pa-4 JK

ACCESSION NR: AP4039933 S/0016/64/000/005/0024/0028

44
43

AUTHOR: Ananova, Ye. V. 6

TITLE: Investigation of experimental tularemia pathogenesis

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 5, 1964, 24-28

TOPIC TAGS: tularemia, F. tularensis strain No. 503, F. tularensis Schu strain, tularemia sensitivity difference, tularemia pathogenesis, F. tularensis nonarctic variety, F. tularensis palearctic variety, tularemia sensitivity of mice, tularemia sensitivity of rats, tularemia sensitivity of cats

ABSTRACT: Three groups of animals with different tularemia sensitivity were infected with virulent tularemia strains in a series of experiments to compare pathogenesis in each group. The first group consisted of white mice with a high susceptibility and a high sensitivity to tularemia, the second group consisted of white rats with a high susceptibility and a low sensitivity to tularemia, and the third group consisted of cats with a very low susceptibility and

Card 1/3

L 5838-65

ACCESSION NR: AP4039933

practically no sensitivity to tularemia. Tularemia pathogenesis in the second group was of greatest interest because the susceptibility and sensitivity of the human organism is comparable to that of white rats. Animals were infected subcutaneously with virulent F. tularensis strain No. 503 (a palearctic variety) or Schu strain (a nonarctic variety) in a large dose containing 1 billion bacteria cells or a small dose containing 10 bacteria cells. Animals were killed 1, 2, 3 days or later and material was prepared for morphological investigations. The extent of the infectious process was based on the number of tularemia bacteria found in the lymph nodes, spleen, and liver. Findings show that tularemia infection differed clinically and bacteriologically as well as pathomorphologically in all three groups infected with a small dose of a tularemia virulent strain. In the first group (white mice), tularemia infection induced by a small dose was mostly of an exudative-alterative nature which indicates that the organism is completely defenseless in relation to virulent tularemia. In the second group (white rats), tularemia infection induced by a small dose was mostly of an exudative-proliferative nature with marked protective reaction in tissues. With large dose infection of the first and second groups, the differences disappeared

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L 6838-65

ACCESSION NR: AP4039933

and tularemia infection developed at an accelerated rate with predominantly oxudative-alterative changes in the organs. In the third group (cats) which was infected with only a large dose, the tularemia infection process was of a benign nature with a very moderate infiltration of cellular elements. The F. tularensis nonarctic variety (No. 503) produced more marked pathological and morphological changes in all the animals regardless of group. The different reactivity of the three groups is attributed to a different cell sensitivity to the toxic action of F. tularensis. Orig. art. has: None.

ASSOCIATION: Institut epidemiologii i mikrobiologii im. Gamaleyi AMN SSSR (Epidemiology and Microbiology Institute AMN SSSR)

SUBMITTED: 05Feb64 ENCL: 00 SUB CODE: LS

NR REF SOV: 009 OTHER: 002

Card 3/3

ANANOVA, Ye.V.; SAVEL'YEVA, R.A.

Possibility of the penetration of the pathogen of tularemia through uninjured skin; preliminary report. Zhur. mikrobiol., epid. i immun. 41 no.3:92-95 Mr '64. (MIRA 17:11)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

L 12942-65 EWT(l)/EWA(j)/EWA(b)-2 JK

ACCESSION NR: AP5006016 S/0016/65/000/003/0065/0070

AUTHOR: Savel'yeva, R. A.; Ananova, Ye. V.

TITLE: Pathogenesis of the pulmonary form of experimental tularemia

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 3, 1965, 65-70, and top third of insert facing p. 35

TOPIC TAGS: guinea pig, mouse, rat, tularemia, pulmonary tularemia, lung, pathogenesis

ABSTRACT: Tularemia infection by aspiration and pathogenesis of the pulmonary form of tularemia were investigated in guinea pigs, albino mice, and albino rats in two experimental series. In the first series the animals were placed into a special chamber (1 m3) and a bacterial syspension of a highly virulent tularemia strain (No. 503) was sprayed in the form of a fine mist (20-40 ml bacterial suspension per hr). The number of bacteria in a suspended state at the start and end of the experiment was determined by air samples using a Krotov apparatus. A Petrie cup filled with 10 ml of a physiological solution

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L 42942-65

ACCESSION NR: AP5003016

was placed into the Krotov apparatus and 100 l of air from the chamber was passed through the fluid. The resulting suspension was titered on albino mice by infecting them with decreasing doses of the suspension and upon their death determining the number of bacterial cells in 1 ml (and thereby in 10 l of air). In the second experimental series the pathogenesis of the pulmonary form of tularemia was studied in guinea pigs by investigating pathomorphological changes of lung tissue and also of the neck lymph node, tracheobronchial lymph node, [illegible] and albino mice are susceptible and sensitive to tularemia [illegible] primary pneumonia type, spreading to the tracheobronchial lymph nodes [illegible] later date the process assumes a specific granulomatous nature with

Card 2/3

L 42942-65

ACCESSION NR: AP5008016

necrobiosis and necrosis in the granulomas. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Institut epidemiologii i mikrobiologii im. N. F. [illegible] AMN SSSR (Institute of Epidemiology and Microbiology AMN

SUBMITTED: 18Nov63 ENCL: 00 SUB CODE: LS

NR REF SOV: 006 OTHER: 000

Card 3/3

LESHCHANSKIY, Yu.I., kand. tekhn. nauk; ANANSKIKH, V.M., inzh.;
LEBEDEVA, O.N., inzh.

Electric parameters of sand and clay in the range of centimeter and decimeter radio waves. Trudy MFTI no.10:49-57 '62.
(MIRA 16:6)

(Soils—Electric properties)
(Radio waves)

TETEREVNIKOVA-BABAYAN, D.N.; ANANYAN, A.A.; GASPARYAN, N.A.

Susceptibility of tomatoes to fusarium wilt and mosaic disease in the Armenian S.S.R. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki. 9 no.4:49-58 Ap '56. (MLRA 9:8)

1. Kafedra morfologii sistematiki rasteniy Yerevanskogo gosudarstvennogo universiteta imeni V.M. Molotova i Armyanskiy opornyy punkt po ovoshchevodstvu Vsesoyuznogo nauchno-issledovatel'skogo instituta konservnoy promyshlennosti.
(Armenia--Tomatoes--Diseases and pests)
(Tomato wilt)
(Mosaic disease)

ANANYAN, A.A.; YEGIAZARYAN, A.G.

Effect of fertilizers on the increase in yield and dry matter content of the tomatoes in the Armenian Lowland. Izv.AN Arm.SSR. Biol. i sel'-khoz.nauki 9 no.8:91-99 Ag '56. (MLRA 9:10)

1. Armyanskiy opornyy punkt Vsesoyuznogo nauchno-issledovatel'skogo instituta konservnoy i ovoshchesushil'noy promyshlennosti.
(ARMENIA--TOMATOES) (FERTILIZERS AND MANURES)

USSR / General Biology. Genetics. B-5

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 52448

Author : Ananyan, A. A.
Inst : Not given
Title : New Tomato Varieties Obtained by Vegetative and Vegetative-Field Hybridization.

Orig Pub : Agrobiologiya, 1957, No. 2, 58-64

Abstract : The author grafted hybrid tomato plants (second generation) in the stage of two-leaf formation on stemmy tomato varieties, resulting, according to the author, in the obtaining of a stemmy variety of tomato with a high percentage of dry matter in the fruit. The author ascribes this result to a combination of effects of hybridization and grafting, and calls such forms vegetative-field hybrids. -- S. Ya. Krayevoy.

Card 1/1

ANANYAN, A.A.

New pepper variety. Kons. i ov. prom. 13 no.5:27-28 My '58.
(MIRA 11:5)

1.Armyanskiy opornyy punkt po ovoshchevodstvu.
(Pepper--Varieties)

TETEREVNIKOVA-BABAYAN, D.N.; ANANYAN, A.A.; YEGIAZARYAN, A.G.; GASPARYAN, N.A.

Effect of organomineral fertilizers on the development of fusarium wilt in tomatoes. Nauch.trudy Erev.un. 64:93-104 '58. (MIRA 11:12)

1. Kafedra botaniki Yerivanskogo gosudarstvennogo universiteta i Armyanskiy opornyy punkt Vsesoyuznogo nauchno-issledovatel'skogo instituta konservnoy i oveshchesushil'noy promyshlennosti.
(Tomatoes--Fertilizers and manures) (Tomato wilt)

ANANYAN, A. A.; TAROSOVA, Ye. O.

Variability of the amount of dry matter in tomatoes and the methods for its increase. Izv. AN Arm. SSR. Biol. nauki 15 no.4: 19-27 Ap '62. (MIRA 15:7)

1. Opytno-selektsionnaya stantsiya ovoshchevodstva Ministerstva sel'skogo khozyaystva Armyanskoy SSR.

(TOMATOES--VARIETIES)

ANANYAN, A.A., kand.sel'skokhozyaystvennykh nauk

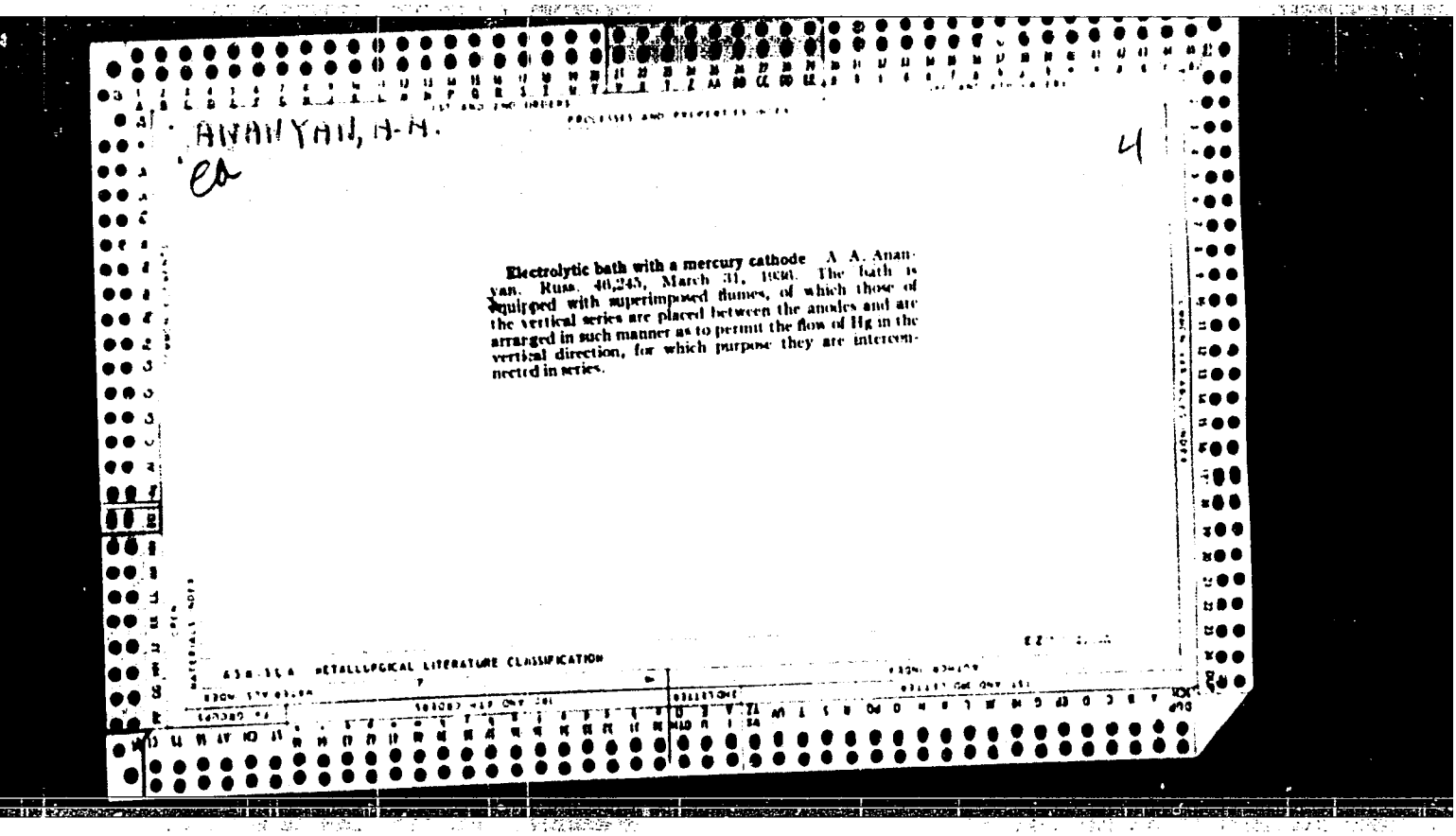
Developing tomato varieties for the canning industry. Agrobiologiia no.6:843-847 N-D '62. (MIRA 16:1)

1. Opytno-selektsionnaya stantsiya ovoshchevodstva, Armyanskaya SSR.

(Armenia--Tomato breeding)

ANANYAN, A.A.; TAROSOVA, Ye.O.; VAROSYAN, R. Ye.

Change in the biochemical indices of tomatoes as a result of vegetative hybridization. Izv. AN Arm. SSR. Biol. nauki 16 no.9:65-74 S'63 (MIRA 17:7)



AVAN YAN, A-A.

CO

4

Electrolytic bath with a mercury cathode A. A. Avanyan. Russ. 40,245, March 31, 1960. The bath is equipped with superimposed flumes, of which those of the vertical series are placed between the anodes and are arranged in such manner as to permit the flow of Hg in the vertical direction, for which purpose they are interconnected in series.

653.554 METALLURGICAL LITERATURE CLASSIFICATION

ANANYAN, A. A. and ANDRIANOV, P. I.

"Study of Relative Temperature, Thermal Conductivity, Specific Heat, of Soils in Permafrost Areas, and Electrical Conductivity of Permafrost," Vest. AS USSR, pp. 82-85, 1946

Sr. Sci. Assoc., Igarka Frost Station, Inst. Pernafrost, AS USSR

CA

15

Displacement of moisture in frozen loose rocks under the action of electroösmosis. A. A. Ananyan. *Kolloid. Zhur.* 14, 1-9(1952).—H_2O remaining in frozen soil may be mobile and available to plants. To test its mobility, electro-osmosis was used. To the bases of a clay prism, 7.5 × 8 × 44 cm., stainless steel electrodes were pressed and a current of 90–135 v. and 6–15 milliamp. was passed for 6 days. The temp. in the center of the prism was −1.3° to −2.1° and near the anode −0.8 to −1.8°. The initial moisture content of the sample was 38% of which 44% was ice. After the expt. the moisture content increased from 21% next to the anode to 65% next to the cathode. Thus, H_2O is transported with pos. current also in frozen soils. The percentage of liquid H_2O in the sample after the expt. was 23% everywhere; only the ice seemed to be transported. Presumably there is an equilibrium between ice and liquid water which is detd. by the surface forces. When the amt. of liquid water at a spot in the soil is too great the excess freezes. Similar results were obtained at −0.2° and −0.6°; the rate of electroösmosis increased with temp. The clay consisted of alternate dark and light layers, and the current flowed along the layers. The dark layers contained more (56% against 33%) of the fine particles (< 0.001 mm.) and had greater plasticity than light layers.

J. J. Bikerman

AUTHOR: Ananyan, A.A. SOV-5-58-2-35/43

TITLE: The Application of Kinetic Conceptions Developed for Aqueous Solutions of Electrolytes in Water Contained in Rocks (Primeneniye kineticheskikh predstavleniy, razvitykh dlya vodnykh rastvorov elektrolitov v vode, soderzhashcheysya v gornykh porodakh)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytateley prirody - Otdel geologicheskiy, 1958, Nr 2, pp 158-159 (USSR)

ABSTRACT: In fine-dispersed rocks, the orientating interaction between the active centers of the surface of mineral rock particles, the molecules of water and the ions, exerts an influence on the translation movement of the latter, deforming the tetrahedral water structure. In accordance with the theory of activated jump particles of the liquid, the following formula is mentioned by the author and explained in detail:

$$j - j_o e - \frac{E + \Delta E \xi}{RT} \quad \text{and} \quad j - j_o e^{-\frac{E}{RT}}$$

where
j is the number of activated jumps of water molecules per second;
j_o is a forexponential multiplier, approximately equal to the doubled frequency of oscillation of molecules around equi-

Card 1/2

The Application of Kinetic Conceptions Developed for Aqueous Solutions of Electrolytes in Water Contained in Rocks

librium state;
E is the activation energy for pure water;
ΔE is the change of the potential barrier by ions;
ξ is the change of potential barriers under the influence of active centers,
R is the gaseous constant, and
T is the absolute temperature.

1. Rock—Moisture content 2. Water—Theory 3. Mathematics
4. Electrolytes—Properties

Card 2/2

SOV/ 49-58-12-10/17

AUTHOR: Ananyan, A. A.

TITLE: Effect of Moisture on the Electric Conductivity of Frozen Rocks (Zavisimost' elektroprovodnosti merzlykh gornykh porod ot vlazhnosti)

PERIODICAL: Izvestiya akademii nauk SSSR, Seriya geofizicheskaya, 1958, Nr 12, pp 1504-1509 (USSR)

ABSTRACT: An investigation was carried out on electric conductivity as related to the moisture of pulverized rocks remaining frozen over the course of years. The results of observations are shown in the form of tables and graphs. Table 1 and Fig.1 represent the data for the loam with the lower plasticity level 23.3%. Table 2 and Fig.2 - 22%, loam. Table 3 and Fig.3 - 29.2%, clay. Table 4 and Fig.4 - 21%, loam. Table 5 shows the quantity of not-frozen water in the latter sample. The analysis of the data shows that the lowest electrical conductivity of frozen loam occurs when its moisture is equal to that of the lower plasticity level. This was not so clearly expressed in the case of clay, where

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Effect of Moisture on the Electric Conductivity of Frozen Rocks

experiments showed that at -0.3°C the quantity of water is usually higher than the moisture of the layer plasticity level. Generally, it can be stated that the electric conductivity increases with a decrease of the ice coefficient and an increase of non-frozen water content in the pulverized rocks. Actually, the water content of rocks should be considered as a solution of electrons (Refs.4 and 5). Therefore, the dynamic properties of water molecules under the action of an electric field, should be determined. This can be expressed by Eq.(1), where j - the number of "jumps" by the water molecule, each equal to 5.9×10^8 per sec (Ref.8), j_0 - a constant, equal to the double frequency of the molecule vibration, φ - base of the natural log, E - the active energy of water = 4.6 k cal/mol at +25°C; R - gas constant, T - absolute temperature. The expression (1) takes the form (2) in the case of rocks where some of the particles are scattered with the molecules of water. The value of ξ in Eq.(2) represents the coefficient of variability of the rock's outer hard surface, which can be calculated from the function $\xi = f(m, l)$, where m - mineral content of rock, l - distance between the rock's outer surface and a water molecule.

Effect of Moisture on the Electric Conductivity of Frozen Rocks

It is evident that $j > j_{or}$. Therefore, Δj can be found from the expression (3). This shows that the number of active jumps of the water molecules contained in the rocks is smaller than that in normal conditions. From this it can be deduced that in the case when ice particles form a barrier between the water molecules and the rock's hard surface, the number of active "jumps" diminishes, which causes a decrease in the electric conductivity to its certain minimum value. There are 5 tables, 4 figures and 8 references, of which 6 are Soviet, 1 English and 1 German.

ASSOCIATION: Vsesoyuznyy proyektno-izyskatel'nyy i n.-i.institut "Gidroproyekt" (All-Union Design-Planning and Scientific Research Institute "Gidroproyekt")

SUBMITTED: January 10, 1958.

ANANYAN, A.A.

Using kinetic concepts of electrolytic aqueous solutions in water contained in rocks. Biul. MOIP. Otd. geol. 33 no.2: 158-159 Mr-Ap '58. (MIRA 11:10)
(Water--Analysis) (Rocks)

AHANYAN, A.A.

Relationship between water and rocks in the light of concepts on the structure of water. Nauch.dokl.vys.shkoly; geol.-geog. nauki no.2:14-17 '59. (MIRA 12:8)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra merzlotovedeniya.
(Water, Underground) (Rocks)

3(5) SOV/170-59-4-13/20

AUTHOR: Ananyan, A.A.

TITLE: Some Peculiarities of Interaction of Water With Rocks (Nekotoryye osobennosti vzaimodeystviya vody s gornoy porodoy)

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 4, pp 93-97 (USSR)

ABSTRACT: Water contained in rocks can often be considered as a solution of electrolytes. The concept of the thermal motion of the particles of a liquid developed by Frenkel' [Ref 9], Samoylov [Ref 7] and others provides a new viewpoint for considering the problem of interaction between water and rocks. The author generalizes Samoylov's method for the case of interaction of water molecules with active centers of the surface of rock particles. As was shown by I.V. Popov [Ref 6] this interaction is determined by the mineralogical composition, the number and character of the active centers of the surface, the existence of ions in water, and the thickness of water film and separation between water molecules and ions on the one hand and the active centers of the surface of rock particles on the other hand. The motion of moisture in thinly dispersed rocks is considered under the influence of temperature gradient,

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ANANYAN, A.A.

Relation between the time of freezing and the amount of water contained in finely dispersed soils. Vest.Mosk.un.Ser.biol., pochv., geol., geog. 14 no.2:171-180 '59. (MIRA 13:4)

1. Kafedra merzlotovedeniya Moskovskogo gos. universiteta.
(Soil freezing)

ANANYAN, A.A.

Mechanism of ice separation in frozen soils during electroosmosis. Vest.Mosk.un.Ser.mat., mekh.,astron.,fiz., khim. 14 no.4:149-151 '59. (MIRA 13:8)

1. Kafedra merzlotovedeniya Moskovskogo universiteta.
(Frozen ground)

ANANYAN, A.A.

Effect of the structure of water and thermal motion of molecules on ice fromation in freezing and frozen rocks. Vest.Mosk.un.Ser.biol., pochv., geol., geog. 14 no.4:175-187 '59. (MIRA 13:6)

1. Kafedra merzlotovedeniya Moskovskogo universiteta.
(Frozen ground)

ANANYAN, A. A., Doc Geol-Min Sci -- (diss) "Phase transitions in water and electroconductivity in freezing and frozen rock." Moscow, 1960. 26 pp; (Moscow State Univ im M. V. Lomonosov, Geology Faculty); 150 copies; price not given; list of author's works on pp 25-26; (KL, 17-60, 143)

ANANYAN, A.A.; BAULIN, V.V.

Second layer of frozen rocks in the Salekhard region. Trudy Inst.merzl.AN SSSR 16:141-149 '60. (MIRA 13:4)
(Salekhard region--Frozen ground)

ANANYAN, A.A., kand.geol.-miner.nauk

Studying processes of moisture migration and the formation of segregational ice in freezing and frozen rocks. Trudy Gidroproekta 3:121-148 '60. (MIRA 13:7)

1. Otdel inzhenernoy geologii Vsesoyuznogo proyektno-izyskatel'skogo i nauchno-issledovatel'skogo instituta "Gidroproyekt" imeni S.Ya. Zhuka.

(Soil freezing)

S/169/62/000/006/008/093
D228/D304

9.7000

AUTHOR: Ananyan, A. A.

TITLE: Electroconductance of frozen rocks of a natural structure in the R. Igarka area

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 8, abstract 6A38 (Merzlotn. issled., no. 1, M., MGU, 1961, 208-215)

TEXT: The elctroconductance of rocks of a natural structure that have been frozen for many years was investigated in specimens from prospecting shafts and wells. The measurements were made at temperatures from -0.3 to +1.2°C by means of a Kohlrausch bridge, with the use of alternating current. The phase composition of water in the frozen rocks was determined in an isothermic colorimeter. Electroconductance values were obtained for clays, loams, sandy loams, and sands with different textures and various inclusions. It is shown that the electroconductance of frozen rocks is principally governed by the degree of dispersion of rocks and by their

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S/169/62/000/006/009/093
D228/D304

9,9700

AUTHORS: Ananyan, A. A. and Dobrovol'skiy, V. P.

TITLE: Electroconductance of frozen rocks of a natural structure in the R. Salekhard area

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 8, abstract 6A39 (V sb. Merzlotn. issled., no. 1, M. MGU, 1961, 216-226)

TEXT: Laboratory determinations were made for the electroconductance of specimens of frozen rocks of a natural structure and moisture. Comparison of the data of measurements, obtained with the application of alternating and direct current, shows that they practically coincide. It is established that the electroconductance of loose frozen rocks is largely determined by the water's phase composition. In the freezing of rocks the electroconductance decreases suddenly. It is noted that rocks of a similar genesis are characterized by approximately identical electroconductivity values. [Abstracter's note: Complete translation.]

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ANANYAN, A.A.; DOBROVOL'SKIY, V.P.

Electric conductivity of frozen ground. Geol. i geofiz. no.3:96-103 '61. (MIRA 14:5)

1. Moskovskiy gosudarstvennyy universitet.
(Frozen ground--Electric properties)

ANANYAN, A. A.

Relationship between the liquid water content of finely dispersed frozen ground and the water properties of such ground. Merzl. issl. no.1:184-189 '61. (MIRA 16:1)

(Frozen ground)

ANANYAN, A. A.

Specific electric conductivity of frozen ground of natural structure from the Igarka region. Merzl. issl. no.1:208-215 '61. (MIRA 16:1)

(Igarka region—Frozen ground—Electric properties)

ANANYAN, A. A.; DOBROVOL'SKIY, V. P.

Specific electric conductivity of frozen ground of natural structure from the Salekhard region. Merzl. issl. no.1:216-226 '61. (MIRA 16:1)

(Salekhard region—Frozen ground—Electric properties)

ANANYAN, A.A.

Studying the depth of the freezing and thawing of rocks under natural conditions using an electric frost-depth meter. Merzl. issl. no.3:118-126 '63. (MIRA 17:6)

ANANYAN, A.A.; TAROSOVA, Ye.O.

Change in biochemical characters of tomatoes as a result of complex intervarietal hybridization. Izv. AN Arm. SSR, Biol. nauki 18 no.1:47-53 Ja '65. (MIRA 18:5)

1. Armyanskaya ovoshchnaya opytno-selektsionnaya stantsiya.

ANANYAN, A.K.

Application of the boundary layer theory to the determination of the loss of pressure in open-source transition sections. Izv.AN Arm. SSR.Ser.FMET 1 no.7:551-572 '48. (MLRA 9:8)

1. Gidroelektricheskaya laboratoriya vodno-energeticheskogo instituta Akademii nauk Armyanskoy SSR.
(Boundary layer) (Fluid dynamics)

ANANYAN, A.K.

Transverse circulation during the deflection of turbulent flow in circular and rectangular conduits. Izv.AN Arm.SSR.Ser.FMET nauk 6 no.1:43-54 Ja-F '53. (MLRA 9:8)

1. Vodno-energeticheskiy institut AN Armyanskoy SSR.
(Hydraulics)

-ANANYAN, A K
ANANYAN, A.K.

3

USSR

1740. Ananian, A. K., **Equations of turbulent flow at the** bend of a water duct (in Russian), *Doklad Akad. Nauk SSSR* (*N.S.*) 93, 4, 633-636, Dec. 1953.

Author attacks the problem by means of successive approximations for (1) the transverse circulatory flow, and (2) change in main velocity distribution due to the transverse flow. Both are for steady state, i.e., for conditions far from the beginning of the bend.

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For this purpose, he writes the equations of motion in the Lamb-Gromeko-Minchin form, in cylindrical coordinates, with variable turbulent viscosity coefficient. Then, in first approximation, disregarding higher inverse powers of bend radius and changes of the main velocities and of turbulent viscosity coefficient, he deduces the differential equation (4th-order) for the transverse flow function. He gives the boundary conditions with regard to skin friction, and says the problem may be solved by the Galerkin variational method.

Then, also disregarding higher inverse powers of bend radius and changes in turbulent viscosity-coefficient distribution, he deduces the differential equation (2nd-order) for the main velocity changes, to be solved by iteration.

Author claims having obtained solutions for circular and rectangular cross sections and approximate solutions for trapezoidal and triangular cross sections, and having checked them by experimental measurements, with good agreement. Some references are given to books and papers in Russian, by same author and others.

a. K. Arakian

Reviewer deserves importance of the transverse flow problem for hydraulic engineering. He checked author's deductions and found them correct; some inconsistencies in formulas are typographical mistakes not affecting the results. A logical extension of the subject would be: equations for further approximations for steady state, and some study of the nonsteady state (at entrance and exit of bend). N. Krivoshein, Argentina

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A.K. Ananian

AMBARTSUMYAN, G.A.

Remarks on A.K.Ananian's article "Water flow capacity of double level spillways." Izv. AN Arm. SSR Ser. FMET nauk 7 no.2:85-89 Mr-Ap '54. (MLRA 8:3)

1. Armyanskiy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.
(Spillways)

ANANYAN, A.K.

Answer to G.A.Ambartsuman's article "Remarks on A.K.Ananian's article on "Capacity of double-level water overflow spillways" Izv. AN Arm SSR. Ser FMET nauk 8 no.3:121-124 My-Je '55. (MLRA 8:11)

1. Vodno-energeticheskiy institut Akademii nauk Armyanskoy SSR (Spillways) (Ambartsuman, G.A.)

ANANYAN, A.K.

Distribution of turbidity in flow with transverse circulation. Dokl. AN SSSR 109 no.2:275-278 Jl '56. (MLRA 9:10)

1. Vodno-energeticheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno akademikom A.I. Nekrasovym.
(Hydrodynamics)

ANANYAN, A. K.

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Ananyan, Antik Karpovich

Dvizheniye zhidkosti na povorote vodovoda (Fluid Flow at the Bend of a Pipe) Yerevan, Izd-vo AN Armyanskoy SSR, 1957. 361 p. 1,000 copies printed.

Sponsoring agency: Akademiya nauk Armyanskoy SSR. Vodno-energeticheskiy institut.

Resp. Ed.: Mkhitaryan, A. M.; Tech. Ed.: Kaplanyan, M. A.

PURPOSE: The book is intended for workers, technicians and engineers concerned with hydromechanics and hydraulics, and also for students of these subjects in institutes and universities.

COVERAGE: The author gives the hydrodynamic solution to the problem of determining longitudinal-transverse and velocity fields around the bend of a pipe of any shape, for pressure and nonpressure systems. He also compares the results of theoretical studies with data from experiments by a number of researchers, including himself. In particular he describes basic methods for investigating the motion of liquids around the bend of a pipe. He states that the problem of transverse circulation, which is a part of this motion, may be solved

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Fluid Flow at the Bend of a Pipe

by averaged equations of the turbulent-flow motion around the bend, and by the boundary conditions of integration. He gives basic methods of analysis of the equations obtained and shows the possibility of solution of this problem by the variation methods of mathematical physics. He gives final computation formulas which determine transverse circulation in pipes of various cross sections (circular, rectangular and triangular), for various diagrams of longitudinal-velocity distribution above the bend. The solution of the problem of longitudinal-velocity distribution within the bend is also given. The author presents an approximate theory of development of transverse circulation within the bend, and of its damping below the bend. He compares the results of an analysis based on this theory with experimental data obtained by workers of the VEnI (Voino-energeticheskiy institut-Water-energy Institute) and by other researchers. In conclusion, he gives the solution of some practical problems obtained on the basis of application of the transverse circulation theory elaborated by the VEnI, including distribution of turbidity in a flow with transverse circulation, transverse-circulation in a divided flow (applicable to damless water intakes), and analysis of pressure losses around the bend of a pipe. The author thanks M. I. Ter-Astvatsaturyan, A. S. Melkonyan, I. G. Khristosturyan, N. N. Mailyan and A. N. Ter-Oganesyan, Chief Engineer, Armyanskoye otdeleniye Gidroenergoproyekta (Armenian Branch of the All-Union Trust for the Design and Planning of Hydroelectric Power Plants and Hydroelectric

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Developments) for their help in preparing the book. There are 90 references, of which 80 are Soviet (including 4 translations), 7 English, 2 German and 1 French.

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AVAILABLE: Library of Congress (TC174.A67)

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ANANYAN, A.K.

Approximate solution of the problem of lateral circulation caused by curved flow in water conduits of triangular cross section. Izv.AN Arm.SSR.Ser.tekh.nauk 10 no.3:3-20 '57. (MIRA 10:10)

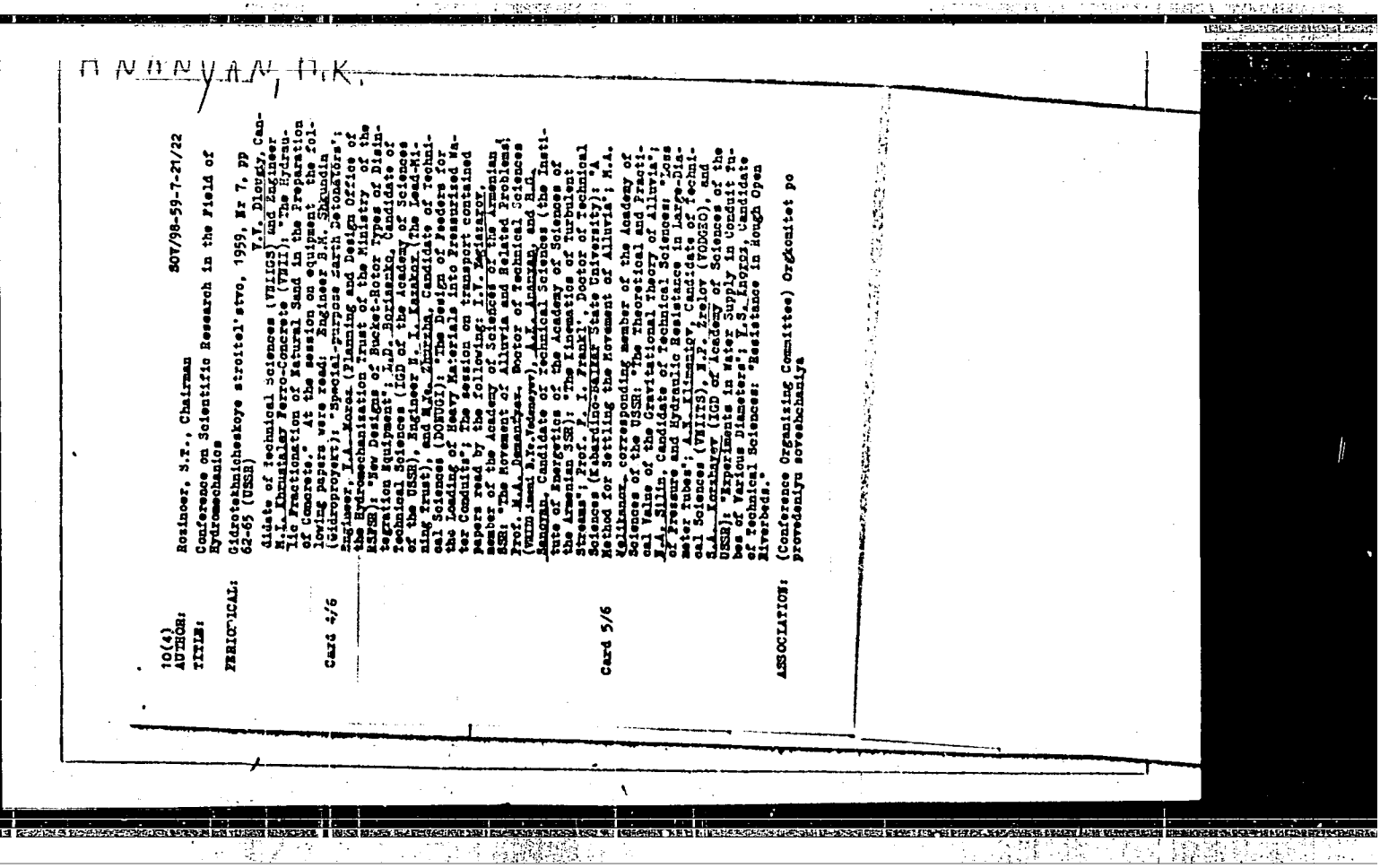
1. Vodno-energeticheskiy institut AN Armyanskoy SSR.
(Hydrodynamics)

ANANYAN, A.K.

ANANYAN, A.K.

Problem of Lake Sevan has to be solved in a new way. Izv. AN Arm. SSR. Ser. tekh. nauk 10 no.5:9-14 '57. (MIRA 11:1)

1. Vodno-energeticheskiy institut AN ArmSSR.
(Sevan, Lake--Hydraulic engineering)



10(4) SOV/98-59-7-21/22
AUTHOR: Rozinov, S.Z., Chairman
TITLE: Conference on Scientific Research in the Field of Hydromechanics
PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 7, pp 62-65 (USSR)

Card 4/6

Card 5/6

ASSOCIATION: (Conference Organizing Committee) Orgkomitet po provedeniyu soveshchaniya

ANANYAN, A. K.

Some problems dealing with the theory of the stream bed process.
Izv.AN Arm.SSR. Ser.tekh.nauk 13 no.2:3-12 '60.
(MIRA 13:8)

1. Institut energetiki i gidravliki AN Armyanskoy SSR.
(Rivers)

ANAN'YAN, A.K., doktor tekhn. nauk, prof.; BEK-MARMARCHEV, B.I., kand. geogr. nauk; ZHAMAGORTSYAN, V.N., kand. tekhn. nauk; CHITCHYAN, A.I., kand. sel'khoz. nauk; YEDIGARYAN, Z.P., mlad. nauchnyy sotr.; SATIAN, M.A., kand. geol.-mineral. nauk; PAYRAZYAN, V.V., mladshiy nauchnyy sotr.; VEBER, V.V., prof.; NAZARYAN, A.G., kand. tekhn. nauk; POKHSRARYAN, M.S., mladshiy nauchnyy sotr.; TER-ASTVATSATRYAN, M.I., mladshiy nauchnyy sotr.; VELIKANOV, M.A.; VELIKANOV, M.A., otv. red.; SHTIBEN, R.A., red. izd-va; KAPLANYAN, M.A., tekhn. red.

[Results of complex research on the Sevan problem] Rezul'taty kompleksnykh issledovanii po Sevanskoi probleme. Erevan, Izd-vo AN Armianskoi SSR. Vol.2. [Channel processes] Ruslovye protsessy. 1962. 255 p. (MIRA 15:7)

1. Akademiya nauk Armyanskoy SSR, Yerivan. Institut vodnykh problem. 2. Chlen-korrespondent Akademii nauk SSSR (for Velikanov).

(Sevan Lake region--Hydrology)

ANANYAN, A.K., doktor tekhn.nauk, prof.

Using models to study channel processes during continuous lowering of the index of the river's level of erosion. Gidr. stroi. 33 no.11:37-39 N '62. (MIRA 16:1)
(Erosion) (Hydraulic models)

MKRTCHYAN, S.S., akademik; ANANYAN, A.K., doktor tekhn.nauk, prof.

I.V.Egiazarov; on his seventieth birthday. Elektrichestvo no.3:94 Mr '63. (MIRA 16:4)

1. Akademik-sekretar' Akademii nauk Armyanskoy SSR (for Mkrtchyan).
(Egiazarov, Ivan Vasil'evich, 1893-)

ANANYAN, A.K.; BEK-MARMARCHEV, B.I.; ZHAMAGORTSYAN, V.N.; MKHITARYAN, A.M.

Using Soviet-produced surface-active agents for reducing the evaporation from water surface in reservoirs. Izv.AN Arm.SSR. Ser.tekh.nauk 16 no.2/3:117-128 '63. (MIRA 16:9)
(Surface-active agents) (Evaporation)

ANANYAN, A.K.

Methods for designing the structures of the Sevan-Razdansk series of hydroelectric power stations with decreased flow during the winter. Izv. AN Arm. SSR. Ser. tekh. nauk 18 no.3:3-15 '65. (MIRA 18:8)

ANANYAN, A.L.; YEGOYAN, V.L.

Geothermal studies in Armenia. Izv.AN Arm.SSR Ser.geol.i geog. nauk v. 11 no.4:23-36 '58. (MIRA 12:1)

1. Institut geologicheskikh nauk AN ArmSSR.
(Armenia--Springs)

ANANYAN, A.L.; KAPLANYAN, P.M.

Metamorphism of mineral waters and the possibility of mineralization within the Dzhermuk region. Izv.AN Arm.SSR Ser.geol.i geog. nauk v. 11 no.4:83-88 '58. (MIRA 12:1)

1. Institut geologicheskikh nauk AN ArmSSR.
(Dzhermuk region--Mineral waters)

KHACHATURYAN, E.A., glavnyy red.; ANANYAN, A.L., red.; KAPLANYAN, P.M., red.; PETROSYAN, I.Kh., red.; SHTIBEN, R.A., izdat. red.; AZIZBEKYAN, L.A., tekhn.red.

[Proceedings of the First Conference of Young Scientists of the Geological Institutes of the Academies of Science of Georgia, Azerbaijan, and Armenia] Trudy Pervoi Zakavkazskoi konferentsii molodykh nauchnykh sotrudnikov geologicheskikh institutov Akademii nauk Gruzinskoi, Azerbaidzhanskoi i Armianskoi SSR. Erevan, Izd-vo Akad.nauk Armianskoi SSR, 1959. 202 p. (MIRA 13:8)

1. Zakavkazskaya konferentsiya molodykh nauchnykh sotrudnikov geologicheskikh institutov akademiy nauk Gruzinskoy, Azerbaydzhanskoy i Armyanskoy SSR, 1st. 2. AN ArmSSR (for Kaplanyan).
(Geology--Congresses)

ANANYAN, A.L.

Earth temperature measurements at Dzhermuk. Dokl.AN Arm.SSR 28 no.1:27-29 '59. (MIRA 12:7)

1. Institut geologicheskikh nauk AN ArmSSR. Predstavleno akademikom AN ArmSSR I.G.Magak'yanom.
(Dzhermuk--Earth temperature)

ANANYAN, A.L.

Some travertine formations in the upper Arpa and Vorotan Valleys.
Izv. AN Arm. SSR. Geol. i geog. nauki 13 no.3/4:89-99 '60.
(MIRA 13:9)
(Transcaucasia--Water, Underground)

[redacted], A.L.

Underground heat in the Dzhermuk region as related to the exploitation of hot springs. Sov. geol. 3 no. 12:98-105 D '60. (MIRA 14:2)

1. Institut geologicheskikh nauk AN Armyanskoy SSR.
(Dzhermuk region--Springs)

BABAYAN, A.T.; TAKMAZYAN, K.TS.; ANANYAN, E.S.

Aqueous alkali cleavage of 1,5-diammonium salts containing a multiple bond in the 2,3-position of the common group. Dokl. AN Arm. SSR 38 no.3:157-162 '64. (MIRA 17:6)

BABAYAN, A.T.; TAKMAZYAN, K.TS.; ANANYAN, E.S.

Amines and ammonium compounds. Part 28: Alkaline decomposition of 1,5-di-(trialkyl ammonium)-2-pentenes. Izv. AN Arm. SSR. Khim. nauki 18 no.3:262-268 '65. (MIRA 18:11)

1. Institut organicheskoy khimii AN ArmSSR. Submitted July 21, 1864.

ANANYAN, Grachiya Tigranovich

[Soda Solonchaks of the Arazdayan Semidesert and the possibilities of their leaching] [Sodovye solonchaki Arazdaianskoi polupustyni i vozmozhnosti ikh promyvki. Erevan, Armianskoe gos.sel'khoz.izd-vo] 1962. 81 p. [In Armenian]
(MIRA 17:4)

KIRAKOSYAN, A.V.; AMINYAN, L.S.

Effect of humidity on the development of ecologic forms of Azotobacter. Vop.mikrobiol. no.1:233-248 '62.

(MIRA 7:10)

KIRAKOSYAN, A.V.; MELIKONYAN, Zh.S.; ANANYAN, L.G.

Effect of pH medium on the development of ecologic forms of Azotobacter chroococcum. Vop. mikrobiol. no.2:87-104 '64.
(MIRA 18:3)

ANANYAN, S. A.

Ananyan, S. A. "Contemporary problem of the immunology and laboratory diagnosis of mosquito fever", Voprosy med. virusologii, Issue 2, 1949, p. 301-14, - Bibliog: 21 items.

SO: U-3042, 11 March 53, (Letopis 'zhurnal 'nykh Statey, No. 10, 1949).

PA 241T12

USSR/Medicine - Virus Diseases Jan 53

"The Problem of Active Immunization Against Pa-patacci Fever. I. Adaptation of the Virus of Pa-patacci Fever to Laboratory Animals," S. A. Ananyan, Inst of Virology imeni D. I. Ivanovskiy

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 1, pp 32-40

The virus of papatacci fever can be successfully cultivated in white mice. Guinea pigs are susceptible to the disease. A symptom-free infection is produced in white rats and rabbits. The disease in these animals is specific: the

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ANANYAN, S. A.

modified strains from these animals produce complement fixation with serum from recovered human patients and specific antisera from infected animals. The virus that has been modified by passage through exptl animals creates immunity in animals which have had the disease. Vaccines prepd from some lab strains of the virus proved to be non-pathogenic and at the same time immunogenic in humans. The strains of virus obtained can be cultivated on chicken embryos, are filterable through "Rublev" filters Nos 1 and 2, are resistant to temps down to minus 70° and to drying at low temps. They do not stand heat: heating at 56° weakens them considerably within 10 min and kills them in 30 min.

241T12

PA 241T13

USSR/Medicine - Virus Diseases Jan 53

"The Problem of Active Immunization Against Papatacci Fever. II. Specific Prophylaxis By Means of Live Vaccine," S. A. Ananyan, Inst of Virology imeni D. I. Ivanovskiy

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 1, pp 40-48

Tests carried out in 1951 in various parts of the USSR showed that dry live vaccine lowers the incidence of papatacci fever 2.5-3.5. If the disease is contracted notwithstanding the inoculation, the period during which the patient has a raised temp is shortened considerably, or any increase of temp eliminated entirely. During 1951, observations were made on 69,000 persons inoculated with live vaccine.

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ANANYAN, S. A.

ANANYAN, Serik Arshakovna

Academic degree of Doctor of Medical Sdiences, based on her defense, 24 December 1954, in the Council of the Department of Hygiene, Microbiology, and Epidemiology, Acad Med Sci USSR, of her dissertation entitled: "Mosquito Fever (Disease of the 'Papatacha' (Etiology, Epidemiology, Clinic, Prophylaxis)."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 16, 2 Jul 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp 5-24, Uncl. JPRS/NY-537